



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,374	01/22/2001	James Thompson	5285-06300	2543
7590	04/28/2005		EXAMINER	
Jeffrey C. Hood Meyertons, Hood, Kivlin, Kowert & Goetzel PC P.O. Box 398 Austin, TX 78767-0398			LESNIEWSKI, VICTOR D	
			ART UNIT	PAPER NUMBER
			2155	
DATE MAILED: 04/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/767,374	THOMPSON ET AL.
	Examiner Victor Lesniewski	Art Unit 2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 January 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 146-281 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 173 is/are allowed.
- 6) Claim(s) 146-149, 151-172, 174-177, 180-182, 184-193 and 195-281 is/are rejected.
- 7) Claim(s) 150, 178, 179, 181, 183 and 194 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/7/05 and 1/31/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed 1/31/2005 has been placed of record in the file.
2. Claims 1-145 have been canceled.
3. Claims 146-281 have been added.
4. Claims 146-281 are now pending.
5. The applicant's arguments with respect to claims 1-281 have been considered but are moot in view of the following new grounds of rejection.
6. The applicant's arguments with respect to the rejections under 35 U.S.C. 101 have been fully considered but they are not persuasive. A detailed discussion is set forth below.

Continued Examination Under 37 CFR 1.114

7. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/31/2005 has been entered.

Information Disclosure Statement

8. The IDS filed 1/7/2005 and the IDS filed 1/31/2005 have been considered.

Claim Objections

9. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

There are two claims numbered 257 meaning that the claims from the second number 257 through claim 281 are misnumbered and should be renumbered claims 258-282.

10. Claim 181 is objected to because the claim lacks a period. Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 228, 229, 250, and 251 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. Claims 228, 229, 250, and 251 recite the limitations “the first network destination” and “the second network destination.” There is insufficient antecedent basis for these limitations in these claims. Nowhere in claims 228, 229, 250, and 251 themselves or in the claims from which they depend is there previous mention of a first or a second network destination, making the scope of claims 228, 229, 250, and 251 unclear.

Claim Rejections - 35 USC § 101

14. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

15. Claims 244-281 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 244-281 recite descriptive material that may or may not be an embodiment of a computer system or embodied on a computer readable medium so as to be executable. Here a carrier medium does not suffice as computer readable or a computer program product and does not constitute eligible subject matter for patentability. See MPEP 2106.IV.B.1(a). For further discussion, see paragraph 37 of this action.

16. Claims 244-281 contain limitations similar to other claims as rejected below. Thus, in the event that these claims were made statutory, they would not necessarily be patentably distinct.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 146-149, 151-162, 165-172, 174-177, 180-182, 184-190, 192, 193, 195-197, 200-210, 212-214, 217-227, 230-237, 239-249, 252-258, and 260-281 are rejected under 35 U.S.C. 102(e) as being anticipated by Meier (U.S. Patent Number 6,847,620).

19. Meier has disclosed:

- <Claims 146 and 256>

A method for providing access to a network system which comprises a network, the method comprising: a first access point (figure 2, “AP”) coupled to the network receiving identification information from a portable computing device (figure 2, “STA”) in a wireless manner, wherein the identification information indicates a first VLAN of a plurality of possible VLANs (column 6, lines 15-22); the first access point determining the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information (column 10, lines 14-19); the first access point receiving data from the portable computing device (column 10, lines 45-54); and providing the received data to the network using the first VLAN determined in said determining (column 10, lines 45-54).

- <Claims 147 and 257 (the first)>

The method of claim 146, wherein the first VLAN corresponds to a first network destination; wherein said providing comprises providing the received data to the first network destination using the first VLAN (column 10, lines 45-54).

- <Claims 148 and 257.(the second)>

The method of claim 146, wherein each of the plurality of possible VLANs corresponds to a respective network destination of a plurality of possible network destinations

(column 6, lines 1-4); wherein the first VLAN corresponds to a first network destination; wherein said providing comprises providing the received data to the first network destination using the first VLAN (column 10, lines 45-54).

- <Claims 149 and 258>

The method of claim 148, wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations (column 9, lines 20-33).

- <Claims 151 and 260>

The method of claim 148, the first access point coupled to the network receiving second identification information from a second portable computing device in a wireless manner, wherein the second identification information indicates a second VLAN of the plurality of possible VLANs (column 9, lines 40-45); the first access point determining the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information (column 10, lines 14-19); the first access point receiving data from the portable computing device (column 10, lines 45-47); and providing the received data to the network using the first VLAN determined in said determining (column 10, lines 47-54).

Furthermore, see figure 2 where STA A4 belongs to VLAN A.

- <Claims 152 and 261>

The method of claim 146, further comprising: the first access point receiving second identification information from a second portable computing device in a wireless manner, wherein the second identification information indicates a second VLAN of the plurality

of possible VLANs (column 9, lines 40-45); the first access point determining the second VLAN of the plurality of possible VLANs after receiving the second identification information (column 10, lines 14-19); the first access point receiving second data from the second portable computing device (column 10, lines 45-47); and providing the second received data to the network using the second VLAN determined in said determining (column 10, lines 47-54).

Furthermore, see figure 2 where STA B4 belongs to VLAN B but gains access through AP3 that belongs to VLAN A.

- <Claims 153 and 262>

The method of claim 146, wherein the network system includes a memory medium which stores a data structure comprising a list of identification information and a corresponding list of the plurality of possible VLANs (column 10, lines 14-28); and wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received identification information to determine the first VLAN (column 10, lines 14-19).

- <Claims 154 and 263>

The method of claim 153, wherein said determining the first VLAN of the plurality of possible VLANs comprises indexing into the data structure using the identification information to determine the first VLAN of the plurality of possible VLANs stored in the data structure corresponding to the identification information (column 10, lines 14-19).

- <Claims 155 and 264>

The method of claim 153, wherein the memory medium is comprised in the first access point (column 10, lines 14-19).

- <Claims 156 and 265>

The method of claim 153, wherein the data structure further comprises associated methods for providing data to the network; and wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received identification information to determine the first VLAN and an associated method for providing data to the network (column 10, lines 14-28).

- <Claims 157 and 266>

The method of claim 146, wherein the identification information comprises a System Identification (column 7, lines 35-39).

- <Claims 158 and 267>

The method of claim 157, wherein the System Identification comprises one or more of a wireless Ethernet Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID) (column 7, lines 35-39).

- <Claims 159 and 268>

The method of claim 158, wherein the BSSID comprises a media access control (MAC) ID (by definition of the BSSID).

For BSSID definition/description see previously cited IEEE Std 802.11-1997, specifically section 7.1.3.3.1-7.

- <Claims 160 and 269>

The method of claim 146, further comprising: determining an access level for the portable computing device after receiving the identification information; wherein said providing the received data to the network using the first VLAN determined in said determining is based on the determined access level (column 10, lines 55-60).

- <Claims 161 and 270>

The method of claim 146, further comprising: the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices (column 3, lines 1-2).

- <Claims 162 and 271>

The method of claim 161, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels (column 3, lines 3-5).

- <Claims 165 and 272>

The method of claim 146, further comprising: the first access point broadcasting a plurality of possible System Identifications (SIDs), wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs (column 8, line 62 through column 9, line 3).

- <Claims 166 and 273>

The method of claim 165, wherein said broadcasting the plurality of possible SIDs includes a beacon format (column 8, line 62 through column 9, line 3).

- <Claims 167 and 274>

The method of claim 146, wherein the first access point is arranged at a known geographic location, the method further comprising: providing network access to the portable computing device using the first VLAN determined in said determining (column 10, lines 45-54); and determining a geographic location of the portable computing device; wherein said providing network access comprises selectively providing network access to the portable computing device based on the determined geographic location of the portable computing device (column 11, line 11 through column 14, line 2).

- <Claims 168 and 275>

The method of claim 146, wherein the first access point is arranged at a known geographic location, the method further comprising: providing network access to the portable computing device using the first VLAN determined in said determining (column 10, lines 45-54); wherein said providing network access comprises selectively providing network access to the portable computing device based on the known geographic location of the first access point (column 11, line 11 through column 14, line 2).

- <Claims 169 and 276>

The method of claim 146, wherein the first access point is arranged at a known geographic location, the method further comprising: providing network access to the portable computing device using the first VLAN determined in said determining (column 10, lines 45-54); and determining an access level for the portable computing device after receiving the identification information (column 10, lines 55-60); wherein said providing network access comprises selectively providing network access to the portable computing

device based on the known geographic location of the first access point and the determined access level (column 11, line 11 through column 14, line 2).

- <Claims 170 and 277>

The method of claim 146, further comprising: assigning a wireless communication channel for communication between the first access point and the portable computing device (column 3, lines 1-5).

- <Claim 171>

The method of claim 170, wherein the first access point assigns the wireless communication channel for communication between the first access point and the portable computing device (column 10, lines 14-28).

- <Claims 172 and 278>

The method of claim 170, wherein said assigning comprises channel based on the identification information assigning the wireless communication received from the portable computing device (column 10, lines 14-28).

- <Claim 174>

A network system, comprising: a network (figure 2); and a first wireless access point coupled to the network (figure 2, “AP”), wherein the first wireless access point is operable to communicate with a portable computing device (figure 2, “STA”), wherein the first wireless access point is configured to receive identification information from the portable computing device indicating a VLAN of a plurality of possible VLANs (column 6, lines 15-22); wherein the first wireless access point is operable to determine the VLAN indicated in the identification information (column 10, lines 14-19); and wherein the first

wireless access point is operable to provide network access to the portable computing device through the determined VLAN (column 10, lines 45-54).

- <Claim 175>

The system of claim 174, wherein each of the plurality of possible VLANS corresponds to a respective network destination of a plurality of possible network destinations (column 6, lines 1-4); wherein the first VLAN corresponds to a first network destination; wherein the first wireless access point is operable to provide the received data to the first network destination using the first VLAN (column 10, lines 45-54).

- <Claim 176>

The system of claim 175, wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations (column 9, lines 20-33).

- <Claim 177>

A network system, comprising: a plurality of wireless access points coupled to a network, wherein each of the plurality of wireless access points is operable to communicate with a portable computing device in a wireless fashion (figure 2), wherein each of the plurality of wireless access points is configured to receive identification information from the portable computing device indicating a VLAN of a plurality of possible VLANs (column 6, lines 15-22); wherein each of the plurality of access points is operable to determine the VLAN indicated by the identification information (column 10, lines 14-19); wherein each of the plurality of wireless access points is operable to provide network access to the portable computing device through the determined VLAN (column 10, lines 45-54).

- <Claim 180>

The network system of claim 177, wherein the identification information comprises a System ID (SID) of a plurality of possible SIDs; and wherein the first access point is operable to recognize the SID of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of possible VLANs (column 7, lines 35-39).

- <Claim 181>

The network system of claim 180, wherein at least a subset of the plurality of possible SIDs comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID) (column 7, lines 35-39)

- <Claim 182>

The network system of claim 180, wherein the first access point is operable to maintain associations between the plurality of possible SIDs and the plurality of the plurality of possible VLANs (column 10, lines 14-28).

- <Claim 184>

The network system of claim 180, wherein the first access point is operable to broadcast at least a subset of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of VLANs (column 8, line 62 through column 9, line 3).

- <Claim 185>

The network system of claim 184, wherein the first access point is operable to use a beacon format to broadcast the at least a subset of the plurality of possible SIDs (column 8, line 62 through column 9, line 3).

- <Claim 186>

The network system of claim 184, wherein the at least a subset of the plurality of possible SIDs comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID) (column 7, lines 35-39).

- <Claim 187>

The network system of claim 177, wherein at least one of said plurality of access points comprises computer software which implements a plurality of virtual access points, wherein each virtual access point of the plurality of virtual access points corresponds to one of the plurality of possible VLANs, and wherein each virtual access point of the plurality of virtual access points provides network access services to one or more portable computing devices through the corresponding VLAN (column 9, lines 58-64).

- <Claim 188>

The network system of claim 187, wherein each virtual access point of the plurality of virtual access points provides access point functionality implemented in software, wherein each virtual access point of the plurality of virtual access points appears as a physical access point to the portable computing device (column 9, lines 58-64).

- <Claim 189>

The network system of claim 187, wherein each virtual access point of the plurality of virtual access points executes a wireless protocol stack (by definition of 802.11 protocol referred to at column 2, lines 14-17, inter alia).

- <Claim 190>

The network system of claim 189, wherein the wireless protocol stack comprises an IEEE 802.11 protocol stack (by definition of 802.11 protocol referred to at column 2, lines 14-17, inter alia).

- <Claim 192>

The network system of claim 177, further comprising: a memory medium coupled to the network which stores a data structure comprising a list of identification information entries and a corresponding list of the plurality of possible VLANs (column 10, lines 14-28); wherein, in said determining the VLAN, each of the plurality of access points is operable to access the memory medium and use the received identification information to determine the VLAN (column 10, lines 14-19).

- <Claim 193>

The network system of claim 192, wherein the memory medium is comprised in one or more of the plurality of access points (column 10, lines 14-19).

- <Claim 195>

The network system of claim 177, wherein the plurality of access points are arranged at known locations in a geographic region, wherein each access point is operable to provide geographic location information indicating a known geographic location of the portable

computing device; and wherein network access is selectively provided to the portable computing device based on the known geographic location of the portable computing device (column 11, line 11 through column 14, line 2).

- <Claim 196>

The network system of claim 177, wherein the first access point is operable to assign a wireless communication channel for communication between the first access point and the portable computing device (column 10, lines 14-28).

- <Claim 197>

The network system of claim 177, wherein one or more of the plurality access points are operable to assign a wireless communication channel based on one or more of: the identification information received from the portable computing device, and a determined access level for the portable computing device, wherein said access level is determined by one of said one or more of the access points after receiving the identification information (column 10, lines 14-28).

- <Claim 200>

The network system of claim 177, wherein the first access point is operable to concurrently use a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices (column 3, lines 1-2).

- <Claim 201>

The network system of claim 200, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels (column 3, lines 3-5).

- <Claim 202>

A method for operating a network system, the method comprising: a first access point (figure 2, “AP”) coupled to a network receiving identification information from a portable computing device (figure 2, “STA”) in a wireless manner (column 6, lines 15-17); the first access point determining a VLAN tag corresponding to the identification information (column 4, lines 61-65 and column 9, lines 40-45); the first access point receiving data from the portable computing device in a wireless manner; and providing the VLAN tag and the data received from the portable computing device to the network, wherein the VLAN tag is usable by the network to route the data received from the portable computing device to a network destination (column 10, lines 45-54).

- <Claim 203>

The method of claim 202, wherein the first access point and the portable computing device communicate using wireless Ethernet (by definition of 802.11 protocol referred to at column 2, lines 14-17, inter alia).

- <Claim 204>

The method of claim 202, wherein the identification information comprises a System Identification (column 7, lines 35-39).

- <Claim 205>

The method of claim 204, wherein the System Identification comprises one or more of a wireless Ethernet Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID) (column 7, lines 35-39).

- <Claim 206>

The method of claim 202, wherein said determining comprises accessing a memory medium coupled to the network to determine the VLAN tag corresponding to the identification information (column 10, lines 14-28).

- <Claim 207>

The method of claim 206, wherein the memory medium comprises a data structure which includes a list of identification information entries and a corresponding list of VLAN tags (column 10, lines 14-28).

- <Claim 208>

The method of claim 207, wherein said determining comprises using the identification information to index into the data structure using the identification information to determine the VLAN tag (column 10, lines 14-19).

- <Claim 209>

The method of claim 206, wherein the first access point comprises the memory medium (column 10, lines 14-19).

- <Claim 210>

The method of claim 202, wherein the identification information comprises a media access control (MAC) 1D (by definition of the BSSID).

For BSSID definition/description see previously cited IEEE Std 802.11-1997, specifically section 7.1.3.3.1-7.

- <Claim 212>

The method of claim 202, further comprising: the first access point receiving second identification information from a second portable computing device in a wireless manner (column 9, lines 40-45); the first access point determining a second VLAN tag corresponding to the second identification information (column 10, lines 14-19); the first access point receiving second data from the second portable computing device in a wireless manner (column 10, lines 45-47); and providing the second VLAN tag and the second data received from the second portable computing device to the network, wherein the second VLAN tag is usable by the network to route the second data received from the second portable computing device to a second network destination (column 10, lines 47-54); wherein the identification information is different from the second identification information; and wherein the network destination is different from the second network destination (column 10, lines 14-28).

Furthermore, see figure 2 where STA B4 belongs to VLAN B but gains access through AP3 that belongs to VLAN A.

- <Claim 213>

The method of claim 212, wherein the second identification information comprises a System Identification (column 7, lines 35-39).

- <Claim 214>

The method of claim 213, wherein the System Identification comprises one or more of a wireless Ethernet Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID) (column 7, lines 35-39).

- <Claim 217>

The method of claim 202, further comprising: a computer system at the network destination receiving the data from the portable computing device; and providing network access to the portable computing device (column 10, lines 45-54).

- <Claim 218>

The method of claim 202, wherein the first access point is arranged at a known geographic location, the method further comprising: the first access point providing geographic location information indicating a known geographic location of the portable computing device; a computer system at the network destination receiving the data from the portable computing device; and providing network access to the portable computing device; wherein said providing network access comprises selectively providing network access to the portable computing device based on the known geographic location of the portable computing device (column 11, line 11 through column 14, line 2).

- <Claim 219>

The method of claim 202, wherein the first access point is arranged at a known geographic location, the method further comprising: the first access point providing geographic location information indicating a known geographic location of the portable computing device; a computer system at the network destination receiving the data from the portable computing device; providing network access to the portable computing device (column 10, lines 45-54); and determining an access level for the portable computing device after receiving the identification information (column 10, lines 55-60); wherein said providing network access comprises selectively providing network access to

the portable computing device based on the known geographic location of the portable computing device and the determined access level (column 11, line 11 through column 14, line 2).

- <Claim 220>

The method of claim 202, further comprising: the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices (column 3, lines 1-2).

- <Claim 221>

The method of claim 220, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels (column 3, lines 3-5).

- <Claims 222 and 244>

A wireless access point comprising: a processor; a memory medium coupled to the processor; a port coupled to the processor, wherein the port is operable to be coupled to a network; and a wireless transceiver coupled to the processor (figure 2, “AP”); wherein the memory medium comprises program instructions which are executable by the processor to: communicate with a first portable computing device (figure 2, “STA”) through the wireless transceiver, wherein the wireless transceiver and the first portable computing device communicate using a first System Identification (column 6, lines 15-17), wherein the first System Identification comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID) (column 7, lines 35-39); and communicate with a second portable computing device

through the wireless transceiver, wherein the wireless transceiver and the second portable computing device communicate using a second System Identification, wherein the second System Identification comprises one or more of a SSID, an Extended ESSID, and a Basic BSSID; wherein the first System Identification is different from the second System Identification (column 10, lines 14-28).

- <Claims 223 and 245>

The wireless access point of claim 222, wherein the program instructions are further executable by the processor to perform said communicating with the first portable computing device through the wireless transceiver and said communicating with the second portable computing device through the wireless transceiver are performed concurrently (column 3, lines 1-5).

- <Claims 224 and 246>

The wireless access point of claim 222, wherein, in said communicating with the first portable computing device through the wireless transceiver, the wireless access point and the first portable computing device communicate using wireless Ethernet; and wherein, in said communicating with the second portable computing device through the wireless transceiver, the wireless access point and the second portable computing device communicate using wireless Ethernet (by definition of 802.11 protocol referred to at column 2, lines 14-17, inter alia).

- <Claims 225 and 247>

The wireless access point of claim 222, wherein, in said communicating with the first portable computing device through the wireless transceiver, the wireless access point

receives first data from the first portable computing device; and wherein, in said communicating with the second portable computing device through the wireless transceiver, the wireless access point receives second data from the second portable computing device (column 10, lines 45-47).

- <Claims 226 and 248>

The wireless access point of claim 225, wherein the memory medium stores a data structure which comprises a list of System Identification entries each indicating network destination information; wherein the program instructions are further executable by the processor to: access the data structure; determine first network destination information indicated by the first System Identification; determine second network destination information indicated by the second System Identification (column 10, lines 14-28); transmit the first network destination information and at least a portion of the first data to the network, wherein the first network destination information is usable to route the at least a portion of the first data to a first network destination indicated by the first network destination information; and transmit the second network destination information and at least a portion of the second data to the network, wherein the second network destination information is usable to route the at least a portion of the second data to a second network destination indicated by the second network destination information (column 10, lines 45-54).

- <Claims 227 and 249>

The wireless access point of claim 226, wherein the first network destination information comprises a first VLAN tag; and wherein the second network destination information comprises a second VLAN tag (column 4, lines 61-65).

- <Claims 230 and 252>

The wireless access point of claim 222, wherein the memory medium stores a data structure which comprises a list of network destination information entries, wherein each entry indicates at least one System Identification (column 10, lines 14-28); wherein, in said communicating with the first portable computing device through the wireless transceiver, the program instructions are further executable by the processor to: receive, from the network, first network destination information and first data from the first network destination (column 10, lines 45-47); access the data structure; and determine the first System Identification indicated by the first network destination information (column 10, lines 14-28); and transmit the first data to the first portable computing device, wherein, in said transmitting the first data to the first portable computing device, the program instructions are further executable by the processor to use the first System Identification (column 10, lines 47-54); wherein, in said communicating with the second portable computing device through the wireless transceiver, the program instructions are further executable by the processor to: receive, from the network, second network destination information and second data from the second network destination (column 10, lines 45-47); access the data structure; determine the second System Identification indicated by the second network destination information (column 10, lines 14-28); and

transmit the second data to the second portable computing device, wherein, in said transmitting the second data to the second portable computing device, the program instructions are further executable by the processor to use the second System Identification (column 10, lines 47-54).

- <Claims 231 and 253>

The wireless access point of claim 222, wherein the program instructions are further executable by the processor to: concurrently broadcast, through the wireless transceiver, the first System Identification and the second System Identification (column 8, line 62 through column 9, line 3).

- <Claims 232 and 254>

The wireless access point of claim 231, wherein, in said broadcasting, the program instructions are further executable by the processor to use a beacon format (column 8, line 62 through column 9, line 3).

- <Claims 233 and 255>

The wireless access point of claim 222, wherein, in said communicating with the first portable computing device, the first program instructions are further executable by the processor to use a first media access control (MAC) ID, and wherein, in said communicating with the second portable computing device, the second program instructions are further executable by the processor to use a second MAC ID , wherein the first MAC ID is different from the second MAC ID (by definition of the BSSID).

For BSSID definition/description see previously cited IEEE Std 802.11-1997, specifically section 7.1.3.3.1-7.

- <Claims 234 and 279>

A method for providing access to a network system, the method comprising: a first access point (figure 2, “AP”) coupled to a network receiving first wireless Ethernet System Identification information and first data (column 6, lines 15-22) from a first portable computing device (figure 2, “STA”), wherein the first portable computing device and the first access point communicate using wireless Ethernet (by definition of 802.11 protocol referred to at column 2, lines 14-17, *inter alia*); the first access point receiving second wireless Ethernet System Identification information and second data from a second portable computing device, wherein the second portable computing device and the first access point communicate using wireless Ethernet (figure 2, “STA B4”); determining a first network destination for the first portable computing device based on the first wireless Ethernet System Identification information; determining a second network destination for the second portable computing device based on the second wireless Ethernet System Identification information (column 10, lines 14-28); providing the first data to the first network destination; and providing the second data to the second network destination; wherein the first wireless Ethernet System Identification information is different from the second wireless Ethernet System Identification information (column 10, lines 45-54).

- <Claims 235 and 280>

The method of claim 234, wherein said providing the first data to the first network destination comprises using a first VLAN; and wherein said providing the second data to

the second network destination comprises using a second VLAN (column 10, lines 45-54).

- <Claim 236>

The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises a basic service set ID (BSSID) (column 7, lines 35-39).

- <Claim 237>

The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises a service set ID (SSID) (column 7, lines 35-39).

- <Claim 239>

The method of claim 234, further comprising: the first access point broadcasting the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information (column 8, line 62 through column 9, line 3).

- <Claims 240 and 281>

The method of claim 239, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID) (column 7, lines 35-39).

- <Claim 241>

The method of claim 239, wherein said broadcasting includes a beacon format (column 8, line 62 through column 9, line 3).

- <Claim 242>

The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises an IEEE 802.11 System Identification (column 7, lines 35-39).

- <Claim 243>

The method of claim 234, further comprising: a first computer system at the first network destination receiving the first data and providing network access to the first portable computing device; and a second computer system at the second network destination receiving the second data and providing network access to the second portable computing device (column 10, lines 45-54).

Since all the limitations of the invention as set forth in claims 146-149, 151-162, 165-172, 174-177, 180-182, 184-190, 192, 193, 195-197, 200-210, 212-214, 217-227, 230-237, 239-249, 252-258, and 260-281 were disclosed by Meier, claims 146-149, 151-162, 165-172, 174-177, 180-182, 184-190, 192, 193, 195-197, 200-210, 212-214, 217-227, 230-237, 239-249, 252-258, and 260-281 are rejected.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 163, 164, 198, 199, 215, and 216 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meier.
22. Concerning these claims, Meier did not explicitly state that his system could utilize IEEE 802.1p or enforce a predefined quality of service metric to a VLAN. However, the 802.1p protocol was known in the art at the time of the applicant's invention and was designed with the purpose of extending the 802.1q protocol. Meier makes use of the 802.1q protocol (see, inter alia, column 2, lines 47-57) and using the 802.1p protocol would be a clear extension of his system since 802.1p was designed for use with the 802.1q. Furthermore, 802.1p is used to define a quality of service for systems like that of Meier's. Thus it would also be a clear extension of Meier's system to enforce a quality of service metric to a VLAN. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Meier by adding the ability to utilize IEEE 802.1p or enforce a predefined quality of service metric to a VLAN. For further detail on the 802.1p protocol, the applicant is directed to the related art cited below to the Network Dictionary.

23. Thereby, Meier discloses:

- <Claim 163>

The method of claim 146, wherein the network is operable to support IEEE 802.1p (obviousness where 802.1p is a clear extension of 802.1q).

- <Claim 164>

The method of claim 146, wherein the network is operable to enforce a predefined quality of service (QoS) metric to the first VLAN (obviousness where 802.1p is a clear extension of 802.1q and allows definition of a quality of service metric).

- <Claim 198>

The network system of claim 177, wherein one or more of the plurality access points are operable to assign a quality of service (QoS) based on one or more of: the identification information received from the portable computing device, and a determined access level for the portable computing device, wherein said access level is determined by one of said one or more of the access points after receiving the identification information (obviousness where 802.1p is a clear extension of 802.1q and allows definition of a quality of service metric).

- <Claim 199>

The network system of claim 177, wherein the network is operable to support IEEE 802.1p (obviousness where 802.1p is a clear extension of 802.1q).

- <Claim 215>

The method of claim 202, further comprising: determining a quality of service based on the received identification information; wherein said providing the VLAN tag and the data received from the portable computing device to the network is based on the quality of service (obviousness where 802.1p is a clear extension of 802.1q and allows definition of a quality of service metric).

- <Claim 216>

The method of claim 202, wherein the VLAN tag comprises quality of service information, wherein the quality of service information indicates a quality of service; wherein the network is operable to route the data received from the portable computing device to the network destination based on the quality of service indicated by the quality

of service information (obviousness where 802.1p is a clear extension of 802.1q and allows definition of a quality of service metric).

Since Meier discloses all of the above limitations, claims 163, 164, 198, 199, 215, and 216 are rejected.

24. Claims 191 and 238 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meier, as applied above, in view of IEEE Std 802.11-1997, hereinafter referred to as IEEE.

25. Meier disclosed a VLAN-aware communications system that utilizes VLAN IDs and VLAN tagged frames. In an analogous art, IEEE discloses details of the 802.11 protocol including descriptions and uses for various service sets in communications systems. Meier's system is based on the IEEE 802.11 protocol.

26. Concerning these claims, Meier did not explicitly state the use of an ESSID. However, the ESSID is explicitly stated by IEEE. Furthermore, Meier does explicitly utilize a BSSID, which is related to an ESSID, and since Meier bases his system on the 802.11 protocol, which defines the ESSID, it would be a clear extension of his system to utilize an ESSID. Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Meier by adding the ability to use an ESSID as provided by IEEE.

27. Thereby, the combination of Meier and IEEE discloses:

- <Claim 191>

The network system of claim 187, wherein each virtual access point of the plurality of virtual access points includes an Extended Service Set ID (ESSID), and wherein each

ESSID corresponds to one of the plurality of possible VLANS (IEEE, sections 5.2 and 5.7, *inter alia*).

- <Claim 238>

The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises an extended service set ID (ESSID) (IEEE, sections 5.2 and 5.7, *inter alia*).

Since the combination of Meier and IEEE discloses all of the above limitations, claims 191 and 238 are rejected.

28. Claim 211 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meier, as applied above, in view of Official Notice.

29. The combination discloses:

- <Claim 211>

The method of claim 202, wherein the identification information comprises a digital certificate (Official Notice).

The use of the digital certificate for security purposes in network communications was well known in the art at the time of the applicant's invention. Therefore, Official Notice is taken.

Since the combination of Meier and Official Notice discloses all of the above limitations, claim 211 is rejected.

30. Claims 228, 229, 250, and 251 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meier, as applied above, in view of Gorsuch (U.S. Patent Number 6,526,034).

31. Meier disclosed a communications system based on the IEEE 802.11 protocol that utilizes a basic service set and BSSID in setting up communications. In an analogous art, Gorsuch discloses a subscriber unit for data communications that uses a wireless LAN connection such as IEEE 802.11.

32. Concerning these claims, Meier did not explicitly state that a network destination could be a service provider. However, Gorsuch's system allows connection to the Internet by offering a wireless Internet Service Provider that a station may connect to. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Meier by adding the ability to make a service provider a network destination as provided by Gorsuch. Here the combination satisfies the need for a device which can automatically select a wireless LAN. See Gorsuch, column 2, lines 42-54.

33. Thereby, the combination of Meier and Gorsuch discloses:

- <Claims 228 and 250>

The wireless access point of claim 222, wherein the first network destination is a destination of a first service provider; wherein the second network destination is a destination of a second service provider (Gorsuch, column 5, line 51 through column 6, line 15).

- <Claims 229 and 251>

The wireless access point of claim 222, wherein the first network destination is a destination of a first service provider; wherein the second network destination is the destination of the first service provider (Gorsuch, column 5, line 51 through column 6, line 15).

Since the combination of Meier and Gorsuch discloses all of the above limitations, claims 228, 229, 250, and 251 are rejected.

Allowable Subject Matter

34. Claim 173 is allowed.

35. Claims 150, 178, 179, 183, and 194 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

36. The following is a statement of reasons for the indication of allowable subject matter: In general, the above listed claims distinguish themselves over the prior art by delineating a network system wherein a wireless access point is able to determine a VLAN for a portable computing device where the VLAN corresponds to a network service provider. Although the prior art may show a network system by which a portable station uses a wireless access point to connect to a particular VLAN, there is not shown a system in which each VLAN corresponds to respective network service providers. Furthermore, the prior art gives no indication that it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to

provide data from a portable station to a network service provider using a specific VLAN that corresponds to the service provider.

Response to Arguments

37. In the remarks the applicant has argued that the delineation of a “carrier medium” in the claims is statutory subject matter. In response, it is maintained that a carrier medium does not suffice as computer readable or a computer program product and does not constitute eligible subject matter for patentability. As the applicant notes, carrier media can include electrical signals, electromagnetic signals, or other forms of analog or digital signals. Such signals do not represent statutory subject matter under 35 U.S.C. 101. Claims reciting a carrier medium are viewed as not tangibly embodied.

Conclusion

38. The prior art made of record and not relied upon is considered pertinent to the applicant’s disclosure.

- Srikanth et al. (U.S. Patent Number 6,430,621) a method for grouping nodes in multiple VLANs that associates a VLAN with a transmitted packet using IEEE 802.1q frame tagging..
- Brockmann (U.S. Patent Number 6,487,657) disclosed a data communications network that comprises a wireless LAN and access points distributed over an area of coverage for linking the computers to the network.
- Yip et al. (U.S. Patent Number 6,618,388) disclosed a method for a VMAN protocol using tagging.
- Network Dictionary, "IEEE 802.1p: LAN Layer 2 QoS/CoS Protocol for Traffic Prioritization," www.networkdictionary.com, accessed 4/15/2005, disclosed a description of the IEEE 802.1p protocol.
- Liu, Zhao; Veeraraghavan, Malathi; and Eng, Kai Y., "A Scalable Wireless Virtual LAN," Proceedings of the 2nd Annual International Conference on Mobile Computing and Networking, November 1996, pgs. 176-186, disclosed a wireless virtual LAN to support mobility in IP-over-ATM networks.

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number is 571-272-3987.

The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VZ
Victor Lesniewski
Patent Examiner
Group Art Unit 2155

Patrice Winder
PATRICE WINDER
PRIMARY EXAMINER